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23363 7590 07/24/2007 CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068			EXAMINER TAN, ALVIN H	
			ART UNIT 2173	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/616,631	Applicant(s) YAMATO ET AL.	
	Examiner Alvin H. Tan	Art Unit 2173	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Remarks*

1. Claims 1-20 have been examined and rejected. This Office action is responsive to the amendment filed on 5/7/07, which has been entered in the above identified application.

### *Specification*

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided [See lines 3, 5, 8, 9, 11-13 of amended abstract]. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

***Claim Rejections - 35 USC § 101***

3. The correction to claim 17 has been approved, and the rejection to the claim under 35 U.S.C. 101 is withdrawn.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-11, 13-15, and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Humpleman et al. (US Patent # 7,039,858 B1).

**Claims 1-11, 13-15, 19**

- 5-1. As to independent claim 1, Examiner notes that the control system being an automotive control system and the electrical equipment being included in an automobile vehicle is merely an intended use of the invention. If a prior art structure is capable of performing the intended use then it meets the claim. Therefore, Humpleman et al. teach a control system for electrical equipment comprising

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- an electrical equipment group including at least one piece of electrical equipment (home device 302) and
- a control unit or units connected to said electrical equipment group (DTV 102), and
- providing a graphical user interface (GUI) for controlling said electrical equipment group, the GUI having a dual structure that separates
  - a functional GUI that controls the function of said electrical equipment (i.e. home page 904) from
  - a main GUI that executes one or more processes including transitioning to said functional GUI (i.e. device link page 710, see col. 17 lines 54-64) wherein
- said electrical equipment has a functional GUI data storage means for storing GUI data for said functional GUI (i.e. sent by HTML, see col. 6 lines 51-67), and
- said control unit has
  - a main GUI data storage means separate from the functional GUI data storage means for storing GUI data for said main GUI (i.e. by a storage representing device link page 710 for a HTML file) and
  - a GUI processing software storage means for storing a GUI processing software for providing said GUI based on each of said GUI data for said functional GUI and said main GUI and for controlling said electrical equipment (i.e. by a storage representing home page 904 for a HTML file).

The control system of Humpleman is used for devices such as those described in (col. 1, lines 24-35), which are devices that may be found in an automobile vehicle (i.e. lighting, stereo equipment, etc.). Hence, the control system is capable of being used as an automotive control system.

5-2. As to claim 2, Humpleman et al. teach a control system for electrical equipment according to claim 1, wherein said main GUI has a function to perform the process including

- display of an initial or final screen, display of menu, change of a screen or voice message corresponding to a condition of said electrical equipment group (i.e. link page 710 displays available devices connected), and
- storage or invoking of the last final condition of the control system for electrical equipment (i.e. home page 904, Fig. 11, shows the last final, or current condition of "Jim's DVD" to be "Playing Ben Hur"), and
- said functional GUI has a function to perform the process including control of the corresponding electrical equipment, display of a condition of the corresponding

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electrical equipment (i.e. home page 904, Fig. 11, shows the last final, or current condition of "Jim's DVD" to be "Playing Ben Hur", and shows several controls for the playback of Jim's DVD player, like eject, play, and pause), and

- storage or invoking of the last final condition of the control system for electrical equipment (i.e. invoking the condition by a control application associated with the device, see col. 19 lines 54-65).

5-3. As to claim 3, Humpleman et al. teach a control system for electrical equipment according to claim 1, wherein each of said GUI data comprises

- GUI transition data defining the state transition of a GUI screen or the movement of object(s) constituting said GUI (i.e. session page 902 updates itself with available devices, in link page 710, and user interaction with services, in home page 902) and
- GUI layout data defining the layout or design of said object(s) (i.e. layout defined by session page 902).

5-4. As to claim 4, Humpleman et al. teach a control system for electrical equipment according to claim 3, wherein said GUI layout data is described in text (i.e. in HTML (hypertext) for session page 902 on DTV 202, see col. 7 lines 7-27 or text shown in session page 902, see Fig. 11).

5-5. As to claim 5, Humpleman et al. teach a control system for electrical equipment according to claim 1, wherein said system further has

- a GUI data transfer and storage means for transferring and storing the GUI data of the functional GUI corresponding to the electrical equipment connected upon the start-up of the control system for electrical equipment to the control unit (i.e. a session page is generated depending on available devices for control, see col. 14 lines 15-24), and
- said GUI is provided by said GUI processing software based on the GUI data stored in the GUI data transfer and storage means (i.e. by the storage for HTML files).

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5-6. As to claim 6, Humpleman et al. teach a control system for electrical equipment according to claim 5, wherein the GUI data of said main GUI is also transferred to, and stored in, said GUI data transfer and storage means (i.e. the HTML file is transferred to the DTV 202 for control see col. 7 lines 7-27).

5-7. As to claim 7, Humpleman et al. teach a control system for electrical equipment according to claim 5, wherein said main GUI data storage means functions also as said GUI data transfer and storage means (i.e. the HTML file is transferred to the DTV 202 for control see col. 7 lines 7-27).

5-8. As to claim 8, Humpleman et al. teach a control system for electrical equipment according to claim 5, wherein said control unit further has a connected electrical equipment storage means for registering the electrical equipment connected to the control unit upon the last shut-down of the control system for electrical equipment, and thereby, among the electrical equipment connected to the control unit upon the start-up of the control system for electrical equipment, for the electrical equipment consistent with those registered in the connected electrical equipment storage means, the GUI data which has been stored in said GUI data transfer and storage means is used without newly transferring and storing the GUI data of the functional GUI corresponding to the electrical equipment (i.e. the device list file is updated depending on available registered devices and stored on DHCP database 314, see col. 12 lines 20-29, and is

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used when needed independent on the on/off status of the control interface of DTV 202).

5-9. As to claim 9, Humpleman et al. teach a control system for electrical equipment according to claim 8, wherein said control unit further has a GUI data erasing means for erasing, from said GUI data transfer and storage means, the GUI data of the functional GUI corresponding to the electrical equipment inconsistent with those connected to the control system for electrical equipment upon the start-up thereof, among the electrical equipment corresponding to the GUI data registered in said GUI data transfer and storage means (i.e. the device list file is updated depending on available registered devices and stored on DHCP database 314, see col. 12 lines 20-29, and is used when needed independent on the on/off status of the control interface of DTV 202).

5-10. As to claim 10, Humpleman et al. teach a control system for electrical equipment according to claim 9, wherein said GUI data erasing means further has a function to maintain the GUI data of the functional GUI corresponding to the electrical equipment previously registered, rather than erase it (i.e. the device list file is updated depending on available registered devices and stored on DHCP database 314, see col. 12 lines 20-29).

5-11. As to claim 11, Humpleman et al. teach a control system for electrical equipment according to claim 1, wherein said system further has a whole GUI data storage means



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for previously storing GUI data of the functional GUI corresponding to the electrical equipment connectable to said control unit and a GUI data extraction means for extracting the GUI data corresponding to the electrical equipment connected upon the start-up of the control system for electrical equipment from the GUI data stored in the whole GUI data storage means, and said GUI processing software provides said GUI based on the GUI data extracted from the whole GUI data storage means by the GUI data extraction means (i.e. a session manager creates and provides a GUI dependent on the status of the system, see col. 9 lines 28-45).

5-12. As to claim 13, Humpleman et al. teach a control system for electrical equipment according to claim 1, wherein said system further has a function to update said main GUI or said functional GUI by updating all or part of the GUI data stored in said main GUI data storage means or said functional GUI data storage means or said GUI data transfer and storage means based on the GUI data stored in the functional GUI data storage means of electrical equipment to be newly connected (i.e. the device list file is updated depending on available registered devices and stored on DHCP database 314, see col. 12 lines 20-29, and is used when by the session manager, see col. 9 lines 28-45, when needed independent on the on/off status of the control interface of DTV 202).

5-13. As to claim 14, Humpleman et al. teach a control system for electrical equipment according to claim 1, wherein said control unit is provided with drive(s) for a external storage medium, and further has a function to update said main GUI or said functional

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GUI by reading the GUI layout data stored in the external medium and, based on the GUI layout data, updating all or part of the GUI data stored in said main GUI data storage means or the functional GUI data storage means or the GUI data transfer and storage means (i.e. different program guides can be created from television programming services, see col. 22 line 55 – col. 23 line 4, or from media connected to the network, see col. 23 lines 24-35 to update information displayed on the GUI).

5-14. As to claim 15, Humpleman et al. teach a control system for electrical equipment according to claim 1, wherein said system further comprises a web browser, and said GUI data is described in XML, and said system further comprises an XML parser which is shared by said web browser and said GUI processing software (i.e. XML can be used and viewed in a browser based network, and one skilled in the art would appreciate that XML can be parsed by a browser to convert XML to data viewed on a screen, see col. 4 lines 5-21).

5-15. As to claim 19, Humpleman et al. teach a control system for electrical equipment according to claim 1, wherein the functional GUI is configured for being replaced or updated without replacing or updating the main GUI in response to addition, removal, or change of the electrical equipment, by disclosing that because each home device supplies its own GUI through its own HTML files to DTV 102, the DTV can provide a command and control interface for a home device without having to know any specific details about the particular device (see col. 6 lines 51-67). Home devices can be

transparently added or removed from the home network without affecting the overall system because each home device defines its own command and control interface through its respective HTML files (see col. 7 lines 1-5).

### Claim 17

5-16. As to independent claim 17, Examiner notes that the control system being an automotive control system and the electrical equipment being included in an automobile vehicle is merely an intended use of the invention. If a prior art structure is capable of performing the intended use then it meets the claim. Therefore, Humpleman et al. teach a software structure for graphical user interface (GUI) processing, in a control system for electrical equipment, the control system comprising

- an electrical equipment group including at least one piece of electrical equipment (home device 302) and
- a control unit or units connected to said electrical equipment group (DTV 102),
- a computer readable media embodying program instructions for execution by the control unit or units, the program instructions adapting the control unit or units for controlling said electrical equipment group (see col. 6 lines 41-50), the program instructions comprising:
- providing a GUI for controlling said electronic equipment group to a user (on DTV 102), said GUI having a dual structure that separates
  - a functional GUI configured to control the function of said electrical equipment (i.e. home page 904) from
  - a main GUI configured to execute one or more processes including transitioning to said functional GUI (i.e. device link page 710, see col. 17 lines 54-64), wherein:
    - functional GUI data defines said functional GUI (i.e. home page 904 represented by a HTML file),
    - main GUI data defines said main GUI (i.e. device link page 710 represented by a HTML file), and
    - the program instructions for providing said GUI and controlling said electrical equipment is based on each of said GUI data (i.e. a session manager, see col. 9 lines 28-45); and

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- each of said GUI data comprises GUI transition data defining the state transition of a GUI screen or the movement of an object or objects constituting said GUI and (i.e. session page 902 updates itself with available devices, in link page 710, and user interaction with services, in home page 902)
- GUI layout data defining the layout or design of said object or objects (i.e. layout defined by session page 902).

The control system of Humpleman is used for devices such as those described in (col. 1, lines 24-35), which are devices that may be found in an automobile vehicle (i.e. lighting, stereo equipment, etc.). Hence, the control system is capable of being used as an automotive control system.

### **Claims 18, 20**

5-17. As to independent claim 18, Examiner notes that the control system being an automotive control system and the electrical equipment being included in an automobile vehicle is merely an intended use of the invention. If a prior art structure is capable of performing the intended use then it meets the claim. Therefore, Humpleman et al. teach a method for providing a GUI for controlling an electrical equipment group in a control system for electrical equipment comprising the electrical equipment group, the electrical equipment group including at least one piece of electrical equipment (home device 302) and a control unit or units connected to said electrical equipment group (DTV 102), the method comprising:

- providing said electrical equipment with a functional GUI data storage means for storing GUI data for a functional GUI for controlling the function of said electrical equipment (i.e. storage for session page 902 represented by HTML file));
- providing said control unit with
  - a main GUI data storage means separate from the functional GUI data storage means for storing GUI data for a main GUI for executing one or more

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- processes including transitioning to said functional GUI (i.e. storage for device link page 710 represented by HTML file) and
- a GUI processing software storage means for storing a GUI processing software for providing said GUI based on each of said GUI data for said functional GUI and said main GUI and for controlling said electrical equipment (i.e. storage for home page 904 represented by HTML file); and
- providing said GUI having a dual structure for controlling said electrical equipment group, based on
  - said GUI data for said functional GUI stored in said functional GUI data storage means of said electrical equipment (i.e. session page 902 includes home page 904 for function and device link page for devices 710) and
  - said GUI data for said main GUI stored in said main GUI data storage means of said control unit, via said GUI processing software stored in said GUI, processing software storage means of said control unit (i.e. by HTML files, see col. 4 lines 5-21), wherein
    - the dual structure separates said functional GUI from said main GUI (see col. 6 lines 51-67).

The control system of Humpleman is used for devices such as those described in (col. 1, lines 24-35), which are devices that may be found in an automobile vehicle (i.e. lighting, stereo equipment, etc.). Hence, the control system is capable of being used as an automotive control system.

5-18. As to claim 20, Humpleman et al. teach a control system for electrical equipment according to claim 1, wherein the functional GUI is configured for being replaced or updated without replacing or updating the main GUI in response to addition, removal, or change of the electrical equipment, by disclosing that because each home device supplies its own GUI through its own HTML files to DTV 102, the DTV can provide a command and control interface for a home device without having to know any specific details about the particular device (see col. 6 lines 51-67). Home devices can be transparently added or removed from the home network without affecting the overall

system because each home device defines its own command and control interface through its respective HTML files (see col. 7 lines 1-5).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Humpleman et al. (US Patent # 7,039,858 B1) in view of Brownell et al. (US Patent # 6,336,147 B1).

7-1. As to claim 12, Humpleman et al. teach a control system for electrical equipment according to claim 5, but does not teach wherein said system further has an electrical equipment connection number limiting means for limiting the number of the pieces of electrical equipment connected to said control unit in accordance with the capacity of the storage means for storing GUI data.

Brownell et al. teach wherein said system further has an electrical equipment connection number limiting means for limiting the number of the pieces of electrical equipment connected to said control unit in accordance with the capacity of the storage means for storing GUI data (see col. 13 lines 38-61, 'Brownell).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teaching of Humpleman et al. and Brownell et al. before him at the time the invention was made, to modify the system of connected components as taught by Humpleman et al. to include a connection limiting method as taught by Brownell et al. with the motivation being to allow "connections be terminate so as to free up capacity," (see col. 13 lines 49-50, 'Brownell).

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Humpleman et al. (US Patent # 7,039,858 B1) in view of Stefaniak (US Patent # 6,550,054 B1).

8-1. As to claim 16, Humpleman et al. teach a control system for electrical equipment according to claim 15, but does not teach wherein said system further has a function to convert data, which is not GUI data described in XML which can be processed by said GUI processing software, into GUI data described in XML which can be processed by said GUI processing software.

Stefaniak teaches wherein said system further has a function to convert data, which is not GUI data described in XML which can be processed by said GUI processing software, into GUI data described in XML which can be processed by said GUI processing software (i.e. see col. 5 lines 5-30, 'Stefaniak).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teaching of Humpleman et al. and Stefaniak before him at the time the invention

was made, to modify the system that accepts XML as taught by Humpleman et al. to include a way to covert data which is not in XML to XML format as taught by Stefaniak with the motivation being to "provide a method for reading and interpreting [data] ... to generate extensible Markup Language [data]." (see col. 1 lines 41-44, 'Stefaniak)

### ***Response to Arguments***

9. The Examiner acknowledges the Applicant's amendments to claims 1-3, 13, 14, 17, and 18 and newly added claims 19 and 20. Regarding independent claim 1, the Applicant alleges that Humpleman et al. (US Patent # 7,039,858 B1), as described in the previous Office action, does not explicitly teach an "automotive control system for electrical equipment included in an automobile vehicle", as has been amended.

Examiner notes that the control system being an automotive control system and the electrical equipment being included in an automobile vehicle is merely an intended use of the invention. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use then it meets the claim. Therefore, contrary to Applicant's arguments, the control system of Humpleman is used for devices such as those described in (col. 1, lines 24-35), which are devices that may be found in an automobile vehicle (i.e. lighting, stereo equipment, etc.). Hence, the control system is capable of being used as an automotive control system.



Applicant alleges that Humpleman et al., as described in the previous Office action, does not explicitly teach that "said control unit has a main GUI data storage means separate from the functional GUI data storage means", as has been amended. Contrary to Applicant's arguments, GUI data for the electrical equipment is stored on the home device as an HTML file (see col. 2 lines 40-43; col. 4 lines 12-16). The control unit (DTV 102) has main data storage means for storing GUI data for linking to each home device's interface (i.e. by a storage representing device link page 710 for a HTML file). Thus, the information for the functional GUI data is stored separately from the main GUI data. Consequently, and given the broadest, most reasonable interpretation of their claim language, Humpleman et al. is still considered to anticipate claim 1. Similar arguments have been presented for independent claims 17 and 18 and thus, Applicant's arguments are not persuasive for the same reasons.

Newly added claims 19 and 20 have been rejected under 35 U.S.C. 102(e) as being anticipated by Humpleman et al. (US Patent # 7,039,858 B1). See sections 5-15 and 5-18.

Applicant states that dependent claims 2-16, 19, and 20 recite all the limitations of the independent claims, and thus, are allowable in view of the remarks set forth regarding independent claims 1 and 18. However, as discussed above, Humpleman et al. is considered to teach claims 1 and 18, and consequently, claims 2-16, 19, and 20 are rejected.

***Conclusion***

10. It should be noted that the examiner originally assigned to this case has been changed.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

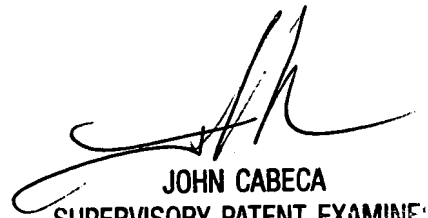
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin H. Tan whose telephone number is 571-272-8595. The examiner can normally be reached on Mon-Fri 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on 571-272-4048. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AHT  
Assistant Examiner  
Art Unit 2173



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SUPERVISORY PATENT EXAMINER  
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